DOCUMENT RESUME

ED 176 557 FL 010 595

AUTHOR Burnett, Robert W.
TITLE National Estimates of Bilingual Education Teachers.
INSTITUTION Stanford Research Inst., Menlo Park, Calif. Educational Policy Research Center.
PUB DATE Apr 79
NOTE 9p.; Paper presented at the annual meeting of the American Educational Research Association (San Francisco, California, April 8-12, 1979)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Bilingual Education; *Bilingual Teachers; Eligibility; *English (Second Language); Language Teachers; Manpower Needs; *Needs Assessment; Non English Speaking; Student Teacher Ratio; Teacher Qualifications; *Teacher Shortage; *Teacher Supply and Demand
IDENTIFIERS *Bilingual Programs

ABSTRACT

A program of research to determine the need for teachers to carry out programs of bilingual education is outlined. The first component of the program deals with the need for bilingual personnel and addresses such policy issues as eligibility for bilingual education, regional concentration of eligibles, participation of non-eligibles, and teacher-pupil ratios. The second component is concerned with the supply of qualified bilingual education teachers, and covers teacher qualification criteria and participation of potential teachers in the labor force. It is estimated that by the end of 1979 data will be available on the need for teachers which will indicate a critical shortage of available teachers. Steps in a procedure of bilingual policy decision-making are presented schematically. (JB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED176557

SRI International

FL010593

NATIONAL ESTIMATES OF BILINGUAL EDUCATION TEACHERS

Robert W. Burnett

Education Research Center

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
SRI International
Robert W. Burnett
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

Paper prepared for the annual meeting of the American Educational Research Association, April 8-12, 1979, San Francisco, California

The conclusions and recommendations in this paper are those of the author and do not necessarily reflect the views of SRI International.

SRI International

333 Ravenswood Ave. • Menlo Park, California 94025
(415) 326-6200 • Cable: STANRES, Menlo Park • TWX: 910-373-1246

ABSTRACT

This paper discusses a program of research to determine the teachers needed to carry out programs of bilingual education. The status of each program component is described. Five policy decisions have to be made before this program accomplishes all of its objectives.

INTRODUCTION

Section 731 (c) of the Bilingual Education Act (as amended by the Education Amendments of 1978--P.L. 95-561) requires the Commissioner of Education to report to Congress on the condition of bilingual education in the nation. This report includes:

> "...(4) an assessment of the number of teachers and other educational personnel needed to carry out programs of bilingual education...."

For the past several years the Education Divison has been engaged in a program of research designed to answer critical questions about bilingual education. One of these questions is: How many bilingual education teachers are needed? To generate the necessary data four major studies were initiated by the National Center for Education Statistics (NCES) and the National Institute of Education (NIE):

- A set of questions regarding language proficiency were designed for the mid-decade census, the Survey of Income and Education (SIE).
- The Children's English and Services Study (CESS) developed language measurement and assessment inventories, and a precise measure of English-language proficiency.
- The Survey of Teacher Language Skills estimated the number of currently employed teachers with non-English language experience or training.
- The Institutions of Higher Education Bilingual Survey studied bilingual teacher training facilities.

The first two studies provide information regarding the need for bilingual personnel. The last two furnish data on the supply of bilingual education teachers.

We expect that bilingual teacher estimates will be available this year. Before this occurs, however, several key policy questions must be decided. These are:

- who is eligible for a bilingual education program?
- how many eligibles constitute a program?

- how many non-eligibles may be in a program?
- how many program participants per qualified teacher?
- who is qualified to teach in bilingual education programs?

The first four questions relate to the determination of need and the last to supply. The details are discussed below.

The Need for Bilingual Education Teachers

It has been estimated that more than 100,000 bilingual education teachers are needed to staff bilingual education programs throughout the country. There appears to be a critical shortage of qualified teachers.

There are four primary factors that determine the need for bilingual education teachers: eligibility criteria; regional concentration of program eligibles; participation of non-eligibles; and teacher-pupil ratios. These factors are shown in the attached decision schematic and discussed in the paragraphs below.

1. Eligibility Criteria--Bilingual education is a program of instruction designed for children of limited English proficiency in elementary or secondary schools. Title VII of the Elementary and Secondary Education Act of 1965 (as modified by P.L. 95-561) defines students with limited English proficiency as:

> "(A) individuals who were not born in the United States or whose native language is a language other than English,
>
> (B) individuals who come from environments where a language other than English is dominant,...
>
> (C) individuals who are American Indian and Alaskan Native students and who come from environments where a language other than English has had a significant impact on their level of English language proficiency....
>
> and, by reason thereof, have sufficient difficulty speaking, reading, writing, or understanding the English language to deny such individuals the opportunity to learn successfully in classrooms where the language of instruction is English."
>
> P.L. 95-561 section 703(a)(1)

Under contract to the Assistant Secretary for Education (ASE), SRI International (formerly Stanford Research Institute) is using the Survey of Income and Education (SIE), for estimates of children

from non-English language backgrounds (NELB). Which of these children have limited-English proficiency is to be determined using a "Measure of English Language Proficiency" (MELP) developed by NCES and NIE as part of the Children's English and Services Study (CESS). We expect that the MELP will be available to us in May. Shortly thereafter we will generate national and state estimates of children of limited-English proficiency (LEP).

There appear to be approximately 4 million LEP students theoretically eligible for bilingual services.

2. Regional Concentration of Eligibles--In some areas there may not be a sufficient number of eligibles to warrant a program of bilingual instruction. (In other areas the distribution of eligibles among different languages might indicate that particular program models would be appropriate.)

   We have developed a procedure to utilize the office of Civil Rights school district data (form 101) with the SIE data to estimate concentration. For this to work we will need to know, at least, how many LEP children must be present before a bilingual program is required. (One approach would be to use teacher-pupil ratio as a proxy for this, i.e., a district must have enough LEP students for at least one bilingual class.)

3. Participation of Non-Eligibles--Since bilingual education classes may include both LEP and non-LEP students we will assume that 40% of students in a program are non-LEP. Thus, we plan to multiply our estimate of LEP program eligibles by 167% to forecast the total number of student participants in bilingual education programs.

4. Teacher-Pupil Ratios--To determine how many bilingual education teachers are needed, we must have more information about acceptable program models and their teacher-pupil ratios (staffing ratios). The total estimates of LEP and non-LEP student participants in bilingual education divided by the appropriate teacher-pupil ratio will indicate the need for bilingual education teachers.

This four-step procedure requires four policy decisions:

1. Who is Eligible? We assume that the MELP is adequate for our purposes.

2. How many eligibles for a program? Our plan is to use teacher-pupil ratio, established by the Office of Bilingual Education (OBE), as the concentration criterion.

3. How many non-eligibles in a program? We assume that we can use the 40% figure from P.L. 95-561 Section 703 (a)(4)(B).

4. How many participants per teacher? We plan to use the staffing ratios established by OBE.

The Supply of Qualified Bilingual Education Teachers

There are two factors that determine the need for bilingual education teachers: teacher qualification criteria; and labor force participation. These factors are shown in the attached decision schematic and discussed in the paragraphs below.

1. Teacher Qualfication Criteria--We are using the NCES-funded Survey of Teacher Language Skills to calculate the number of qualified teachers in the labor force (and those who are actually teaching in bilingual education programs). This survey estimated how many teachers currently employed in public schools have the background, experience, education and skills needed to teach LEP students.

   There were approximately two million elementary and secondary public school teachers in the 1976-77 school year. Of these, 100,000 said they taught English as a second language (ESL); however, only 16,000 taught ESL more than 50% of the time and most of the ESL teachers used only English in their classes. There were 42,000 teachers who reported that they use a non-English language in their classroom; however, only 12,000 use the non-English language more than 25% of the time and most have not had basic courses in bilingual education.

   How many bilingual education teachers are in the labor force has not yet been estimated. Before this can be done we need to have more information from OBE about bilingual education teacher qualfications. It appears, however, that there will be, at most, 20,000 teachers qualified to teach bilingual education.

   We are also using the NCES-funded Institutions of Higher Education Survey to forecast the number of graduates qualified to teach in bilingual education programs. This survey determined that 224 Institutions of Higher Education (including some that offer only AA degrees) have some form of bilingual teacher training activities. How many bilingual education graduates are being produced annually has not yet been estimated. Before this can be done we need to have more information from OBE about Bilingual education teacher qualifications. It appears, however, that approximately 6,000 graduates are produced annually. (How many of these actually enter the labor force has yet to be determined.)

2. Labor Force Participation--We will use the Survey of Teacher Language Skills to estimate the number of qualified teachers who are actually teaching in bilingual education programs. (That is, there are some qualified teachers who are not teaching bilingual education because they are teaching other subjects or they have left the labor force.)

   We do not have a similar source of data for the IHE graduates. Eventually we will obtain comparable information from the RMC study of Title VII funded training institutions. For now we plan to use the factors derived from the Survey of Teacher Language Skills, i.e.,

we will assume that the same percent leave the labor force and of those that enter the labor force, the same percent teach in bilingual education programs.

Our study does not, at present, consider qualified teachers produced by in-service training. We do not have a source for these data (although a proposed NIE study might produce applicable data).

This two-step procedure requires a major policy decision regarding who is qualified to teach in bilingual education programs.

Summary

By the end of 1979, there should be solid data available on the number of teachers needed to carry out programs of bilingual education. It appears, however, that there will be a critical shortage of these teachers.*

There seem to be several policy options that the Education Division could use to address this deficit. One tact would be to change eligibility criteria, concentration thresholds, or the percent of non-LEP program participants. Another approach would be to alter acceptable program models or their teacher-pupil ratios. There is also the alternative strategy of changing teacher qualifications or of providing incentives for recruitment of qualified teachers. There are two sources for the new teachers; they can be newly credentialled after graduating from institutions of higher education or they can be additionally credentialled after receiving in-service training. Providing the necessary teachers by providing incentives for teachers already in the labor force to receive additional bilingual credentials seems like an appropriate strategy+; unfortunately there is no current research concerning the effectiveness of this approach.

---

* If there are 3 million estimated LEP and non-LEP participants in bilingual education programs, and the staffing ratio is 30:1, then 100,000 bilingual teachers are needed. It appears that less than 25,000 such teachers are available.

+ The Survey of Teacher Language Skills indicates that 79% of teachers who use a non-English language rate themselves as having sufficient skills to be able to, at least, teach the language as a foreign language.

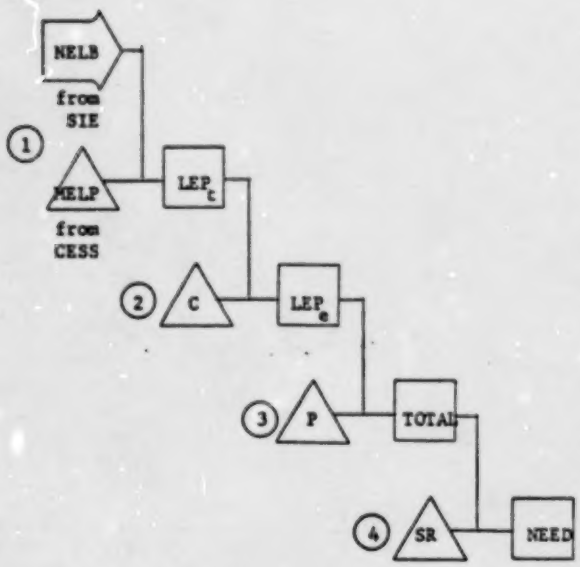
The Educational Amendments of 1978 calls for the Secretary of HEW to produce a major report concerning bilingual education:

> "The Secretary shall prepare and submit to the President and to the Congress not later than December 31, 1981, a report setting forth recommendations on the methods of converting, not later than July 1, 1984, the bilingual education program from a discretionary grant program to a formula grant program to serve students of limited English proficiency and recommendations on whether or not such conversion would best serve the needs of such students."
>
> P.L. 95-561 Section 731 (f)

One factor to be considered in this report should be how many teachers are needed to serve the target population and what strategy should be pursued to provide these teachers. If it appears that the Education Division is promoting bilingual education without a parallel effort to develop the resources necessary to staff the program, the viability of the entire effort is suspect. (Since 1974 the Office of Bilingual Education has spent more than $165 million on teacher training. Recently the number of college graduates qualified to teach bilingual education has increased.)

Where will bilingual education teachers come from? This question needs to be answered if the Federal initiative to serve children of limited English proficiency is to maintain its momentum.

DECISION SCHEMATIC



KEY

NELB = Non-English Language Background

MELP = Measure of English Language Proficiency

LEP_t = Limited English Proficiency, total

C = Concentration criteria

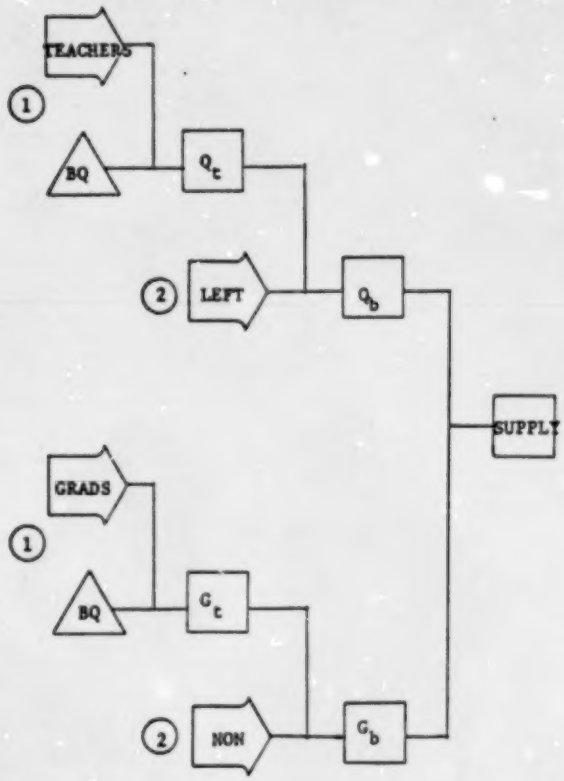
LEP_e = Limited English Proficiency, eligibles

P = Percent non-eligibles permitted in program

TOTAL = total program participants

SR = staffing ratios

NEED = need for bilingual education teachers



TEACHERS = Elementary and Secondary teachers

BQ = Bilingual education teacher qualifications

Q_t = Teachers qualified to teach bilingual ed.

LEFT = Qualified teachers who are not teaching bilingual ed.

Q_b = Qualified teachers who are teaching bilingual ed.

GRADS = College graduates in elemenatary and secondary education

G_t = Graduates qualified to teach bilingual ed.

NON = Qualified graduates who do not elect to teach bilingual ed.

G_b = Graduates who are teaching bilingual ed.

⬠ = planning factor

△ = policy decision

□ = derived variable